

|  |   |   |                                 |
|--|---|---|---------------------------------|
| APPLICANT FACSIMILE OF FORM PTO-1449<br>REV 7-80                             | U.S. DEPARTMENT OF<br>COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY DOCKET NO<br><b>IGI-012CN</b>      | SERIAL NO.<br><b>08/087,132</b> |
| LIST OF PUBLICATIONS CITED BY APPLICANT<br>(Use several sheets if necessary) |   | APPLICANT<br><b>R.J. GREGORY ET AL.</b> |                                 |
|  |   | FILING DATE<br><b>JULY 2, 1993</b>      | GROUP<br><b>1812</b>            |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |    | DOCUMENT NUMBER | DATE | NAME                 | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|----|-----------------|------|----------------------|-------|----------|-------------------------------|
| <i>WCC</i>          | AA | 5,240,846       | 8/93 | Collins, F.S. et al. | 204   | 180      |                               |
| <i>WCC</i>          | AB | 4,322,274       | 3/82 | Wilson, G.B. et al.  | 204   | 180      |                               |
|                     | AC |                 |      |                      |       |          |                               |
|                     | AD |                 |      |                      |       |          |                               |
|                     | AE |                 |      |                      |       |          |                               |
|                     | AF |                 |      |                      |       |          |                               |
|                     | AG |                 |      |                      |       |          |                               |
|                     | AH |                 |      |                      |       |          |                               |
|                     | AI |                 |      |                      |       |          |                               |
|                     | AJ |                 |      |                      |       |          |                               |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|--|----|-----------------|------|---------|-------|----------|-------------|----|
|  |    |                 |      |         |       |          | YES         | NO |
|  | AL |                 |      |         |       |          |             |    |
|  | AM |                 |      |         |       |          |             |    |
|  | AN |                 |      |         |       |          |             |    |
|  | AO |                 |      |         |       |          |             |    |
|  | AP |                 |      |         |       |          |             |    |

## OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

|  |    |   |
|--|----|---|
| <i>WCC</i>   | AR | Welsh, M.J. et al. (1993) "Molecular Mechanisms of CFTR Chloride Channel Dysfunction in Cystic Fibrosis" CELL 73:1251-1254.                               |
|  | AS | Teem, J.L. et al. (1993) "Identification of Revertants for the Cystic Fibrosis $\Delta F508$ Mutation Using STE6-CFTR Chimeras in yeast" CELL 73:335-346. |
|  | AT | Kartner, N. et al. (1992) "Mislocalization of $\Delta F508$ CFTR in Cystic Fibrosis Sweat Gland" NATURE GENETICS 1:321-327.                               |
|  |    |   |
|  |    |   |
|  |    |   |
| Examiner<br><i>K. Carbone</i>  |    | Date Considered<br><i>11-2-93</i>   |
| *EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |    |   |

|  |   |   |                                 |
|--|---|---|---------------------------------|
| APPLICANT FACSIMILE OF FORM PTO-1449<br>REV 7-80                             | U.S. DEPARTMENT OF<br>COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY DOCKET NO<br><b>IGI-012CN</b>      | SERIAL NO.<br><b>08/087,132</b> |
| LIST OF PUBLICATIONS CITED BY APPLICANT<br>(Use several sheets if necessary) |   | APPLICANT<br><b>R.J. GREGORY ET AL.</b> |                                 |
|  |   | FILING DATE<br><b>JULY 2, 1993</b>      | GROUP<br><b>1812</b>            |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|----|-----------------|------|------|-------|----------|-------------------------------|
|                     | AA |                 |      |      |       |          |                               |
|                     | AB |                 |      |      |       |          |                               |
|                     | AC |                 |      |      |       |          |                               |
|                     | AD |                 |      |      |       |          |                               |
|                     | AE |                 |      |      |       |          |                               |
|                     | AF |                 |      |      |       |          |                               |
|                     | AG |                 |      |      |       |          |                               |
|                     | AH |                 |      |      |       |          |                               |
|                     | AI |                 |      |      |       |          |                               |
|                     | AJ |                 |      |      |       |          |                               |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|--|----|-----------------|------|---------|-------|----------|-------------|----|
|  |    |                 |      |         |       |          | YES         | NO |
|  | AL |                 |      |         |       |          |             |    |
|  | AM |                 |      |         |       |          |             |    |
|  | AN |                 |      |         |       |          |             |    |
|  | AO |                 |      |         |       |          |             |    |
|  | AP |                 |      |         |       |          |             |    |

## OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

|  |    |   |
|--|----|---|
| <i>cdc</i>   | AU | Yoshimura, K. et al. (1992) "Expression of the Human Cystic Fibrosis Transmembrane Conductance Regulator Gene in the Mouse Lung After In Vivo Intratracheal Plasmid-Mediated Gene Transfer" NUCLEIC ACIDS RESEARCH 20 (12):3233-3240. |
|  | AV | Bear, C.E. et al. (1992) "Purification and Functional Reconstitution of the Cystic Fibrosis Transmembrane Conductance Regulator" CELL 68:809-818.   |
|  | AW | Ostedgaard, L.S. et al. (1992) "Partial Purification of the Cystic Fibrosis Transmembrane Conductance Regulator" J. BIOL. CHEM. 267(36):21142-26149.  |
|  |    |   |
|  |    |   |
|  |    |   |
|  |    |   |
| Examiner<br><i>K. P. Carbow</i>  |    | Date Considered<br><b>11-2-93</b>   |
| *EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |    |   |

|  |   |   |                                 |
|--|---|---|---------------------------------|
| APPLICANT FACSIMILE OF FORM PTO-1449<br>REV 7-80                             | U.S. DEPARTMENT OF<br>COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY DOCKET NO<br><b>IGI-012CN</b>      | SERIAL NO.<br><b>08/087,132</b> |
| LIST OF PUBLICATIONS CITED BY APPLICANT<br>(Use several sheets if necessary) |   | APPLICANT<br><b>R.J. GREGORY ET AL.</b> |                                 |
|  |   | FILING DATE<br><b>JULY 2, 1993</b>      | GROUP<br><b>1812</b>            |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|----|-----------------|------|------|-------|----------|-------------------------------|
|                     | AA |                 |      |      |       |          |                               |
|                     | AB |                 |      |      |       |          |                               |
|                     | AC |                 |      |      |       |          |                               |
|                     | AD |                 |      |      |       |          |                               |
|                     | AE |                 |      |      |       |          |                               |
|                     | AF |                 |      |      |       |          |                               |
|                     | AG |                 |      |      |       |          |                               |
|                     | AH |                 |      |      |       |          |                               |
|                     | AI |                 |      |      |       |          |                               |
|                     | AJ |                 |      |      |       |          |                               |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|--|----|-----------------|------|---------|-------|----------|-------------|----|
|  |    |                 |      |         |       |          | YES         | NO |
|  | AL |                 |      |         |       |          |             |    |
|  | AM |                 |      |         |       |          |             |    |
|  | AN |                 |      |         |       |          |             |    |
|  | AO |                 |      |         |       |          |             |    |
|  | AP |                 |      |         |       |          |             |    |

## OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

|  |    |   |
|--|----|---|
| <i>1cdc</i>  | AX | Rosenfeld, M.A. et al. (1992) "In Vivo Transfer of the Human Cystic Fibrosis Transmembrane Conductance Regulator Gene to the Airway Epithelium" CELL 68:143-155                           |
|  | AY | Denning, G.M. et al. "Abnormal Localization of Cystic Fibrosis Transmembrane Conductance Regulator in Primary Cultures of Cystic Fibrosis Airway Epithelia" J. CELL BIOL. 118(3):551-559. |
|  | AZ | Smith, A.E. et al. (1992) "Emerging Therapies for Cystic Fibrosis" Section V-Topics in Biology in ANN. REP. MED. CHEM. 27:235-243.  |
|  |    |   |
|  |    |   |
| Examiner<br><i>R. Corbman</i>  |    | Date Considered<br><i>11-2-93</i>   |
| *EXAMINER : Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |    |   |

|  |   |   |                                 |
|--|---|---|---------------------------------|
| APPLICANT FACSIMILE OF FORM PTO-1449<br>REV 7-80                             | U.S. DEPARTMENT OF<br>COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY DOCKET NO<br><b>IGI-012CN</b>      | SERIAL NO.<br><b>08/087,132</b> |
| LIST OF PUBLICATIONS CITED BY APPLICANT<br>(Use several sheets if necessary) |   | APPLICANT<br><b>R.J. GREGORY ET AL.</b> |                                 |
|  |   | FILING DATE<br><b>JULY 2, 1993</b>      | GROUP<br><b>1812</b>            |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|----|-----------------|------|------|-------|----------|-------------------------------|
|                     | AA |                 |      |      |       |          |                               |
|                     | AB |                 |      |      |       |          |                               |
|                     | AC |                 |      |      |       |          |                               |
|                     | AD |                 |      |      |       |          |                               |
|                     | AE |                 |      |      |       |          |                               |
|                     | AF |                 |      |      |       |          |                               |
|                     | AG |                 |      |      |       |          |                               |
|                     | AH |                 |      |      |       |          |                               |
|                     | AI |                 |      |      |       |          |                               |
|                     | AJ |                 |      |      |       |          |                               |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|--|----|-----------------|------|---------|-------|----------|-------------|----|
|  |    |                 |      |         |       |          | YES         | NO |
|  | AL |                 |      |         |       |          |             |    |
|  | AM |                 |      |         |       |          |             |    |
|  | AN |                 |      |         |       |          |             |    |
|  | AO |                 |      |         |       |          |             |    |
|  | AP |                 |      |         |       |          |             |    |

## OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

|  |    |  |
|--|----|--|
|  | AR | Welsh, M.J. et al. (1992) "Cystic Fibrosis Transmembrane Conductance Regulator: A Chloride Channel with Novel Regulation" NEURON 8:821-829.              |
|  | AS | Rosenfeld, M.A. et al. (1991) "In Vivo Transfer of the Human Cystic Fibrosis Gene to the Respiratory Epithelium" CLIN. RES. 39(2):311A.                  |
|  | AT | Dork, T. et al. (1991) "Cystic Fibrosis with Three Mutations in the Cystic Fibrosis Transmembrane Conductance Regulator Gene" HUMAN GENETICS 87:441-446. |
|  |    |  |
|  |    |  |
| Examiner<br>   |    | Date Considered<br><b>11-2-93</b>  |
| *EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |    |  |

|  |   |   |                                 |
|--|---|---|---------------------------------|
| APPLICANT FACSIMILE OF FORM PTO-1449<br>REV 7-80                             | U.S. DEPARTMENT OF<br>COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY DOCKET NO<br><b>IGI-012CN</b>      | SERIAL NO.<br><b>08/087,132</b> |
| LIST OF PUBLICATIONS CITED BY APPLICANT<br>(Use several sheets if necessary) |   | APPLICANT<br><b>R.J. GREGORY ET AL.</b> |                                 |
|  |   | FILING DATE<br><b>JULY 2, 1993</b>      | GROUP<br><b>1812</b>            |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|----|-----------------|------|------|-------|----------|-------------------------------|
|                     | AA |                 |      |      |       |          |                               |
|                     | AB |                 |      |      |       |          |                               |
|                     | AC |                 |      |      |       |          |                               |
|                     | AD |                 |      |      |       |          |                               |
|                     | AE |                 |      |      |       |          |                               |
|                     | AF |                 |      |      |       |          |                               |
|                     | AG |                 |      |      |       |          |                               |
|                     | AH |                 |      |      |       |          |                               |
|                     | AI |                 |      |      |       |          |                               |
|                     | AJ |                 |      |      |       |          |                               |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|--|----|-----------------|------|---------|-------|----------|-------------|----|
|  |    |                 |      |         |       |          | YES         | NO |
|  | AL |                 |      |         |       |          |             |    |
|  | AM |                 |      |         |       |          |             |    |
|  | AN |                 |      |         |       |          |             |    |
|  | AO |                 |      |         |       |          |             |    |
|  | AP |                 |      |         |       |          |             |    |

## OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

|   |    |   |
|---|----|---|
| <p><i>YCE</i></p>   | AU | Drumm, M.L. et al. (1991) "Chloride Conductance Expressed by $\Delta F508$ and Other Mutant CFTRs in <i>Xenopus</i> Oocytes" SCIENCE 254:1797-1799. |
|   | AV | Dalemans, W. et al. (1991) "Altered Chloride Ion Channel Kinetics Associated with the $\Delta F508$ Cystic Fibrosis Mutation" NATURE 354:526-528.   |
|   | AW | Gregory, R.J. et al (1990) "Expression and Characterization of the Cystic Fibrosis Transmembrane Conductance Regulator" NATURE 347:382-386.         |
|   |    |   |
|   |    |   |
| Examiner<br><i>K. Corbaine Carlsen</i>  |    | Date Considered<br><i>11-2-93</i>   |
| <p>*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p> |    |   |

|  |   |   |                                 |
|--|---|---|---------------------------------|
| APPLICANT FACSIMILE OF FORM PTO-1449<br>REV 7-80                             | U.S. DEPARTMENT OF<br>COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY DOCKET NO<br><b>IGI-012CN</b>      | SERIAL NO.<br><b>08/087,132</b> |
| LIST OF PUBLICATIONS CITED BY APPLICANT<br>(Use several sheets if necessary) |   | APPLICANT<br><b>R.J. GREGORY ET AL.</b> |                                 |
|  |   | FILING DATE<br><b>JULY 2, 1993</b>      | GROUP<br><b>1812</b>            |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|----|-----------------|------|------|-------|----------|-------------------------------|
|                     | AA |                 |      |      |       |          |                               |
|                     | AB |                 |      |      |       |          |                               |
|                     | AC |                 |      |      |       |          |                               |
|                     | AD |                 |      |      |       |          |                               |
|                     | AE |                 |      |      |       |          |                               |
|                     | AF |                 |      |      |       |          |                               |
|                     | AG |                 |      |      |       |          |                               |
|                     | AH |                 |      |      |       |          |                               |
|                     | AI |                 |      |      |       |          |                               |
|                     | AJ |                 |      |      |       |          |                               |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|--|----|-----------------|------|---------|-------|----------|-------------|----|
|  |    |                 |      |         |       |          | YES         | NO |
|  | AL |                 |      |         |       |          |             |    |
|  | AM |                 |      |         |       |          |             |    |
|  | AN |                 |      |         |       |          |             |    |
|  | AO |                 |      |         |       |          |             |    |
|  | AP |                 |      |         |       |          |             |    |

## OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

|   |    |  |
|---|----|--|
| 1000  | AX | Drumm, M.L. (1990) "Correction of the Cystic Fibrosis Defect In Vitro by Retrovirus Mediated Gene Transfer" CELL 62:1227-1233.   |
|   | AY | Rich, D.P. et al. (1990) "Expression of the Cystic Fibrosis Transmembrane Conductance Regulator Corrects Defective Chloride Ion Channel Regulation in Cystic Fibrosis Airway Epithelial Cells" NATURE 347:358-363. |
|   | AZ | Rommens, J.M. et al. (1989) "Characterization of the Cystic Fibrosis Gene: Chromosome Walking and Jumping" SCIENCE 245:1059-1065.  |
|   |    |  |
|   |    |  |
|   |    |  |
|   |    |  |
| Examiner<br><i>K. Chavane Carter</i>  |    | Date Considered<br><i>11-2-93</i>  |
| EXAMINER : Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |    |  |

|  |   |   |                                 |
|--|---|---|---------------------------------|
| APPLICANT FACSIMILE OF FORM PTO-1449<br>REV 7-80                             | U.S. DEPARTMENT OF<br>COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY DOCKET NO<br><b>IGI-012CN</b>      | SERIAL NO.<br><b>08/087,132</b> |
| LIST OF PUBLICATIONS CITED BY APPLICANT<br>(Use several sheets if necessary) |   | APPLICANT<br><b>R.J. GREGORY ET AL.</b> |                                 |
|  |   | FILING DATE<br><b>JULY 2, 1993</b>      | GROUP<br><b>1812</b>            |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|----|-----------------|------|------|-------|----------|-------------------------------|
|                     | AA |                 |      |      |       |          |                               |
|                     | AB |                 |      |      |       |          |                               |
|                     | AC |                 |      |      |       |          |                               |
|                     | AD |                 |      |      |       |          |                               |
|                     | AE |                 |      |      |       |          |                               |
|                     | AF |                 |      |      |       |          |                               |
|                     | AG |                 |      |      |       |          |                               |
|                     | AH |                 |      |      |       |          |                               |
|                     | AI |                 |      |      |       |          |                               |
|                     | AJ |                 |      |      |       |          |                               |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|--|----|-----------------|------|---------|-------|----------|-------------|----|
|  |    |                 |      |         |       |          | YES         | NO |
|  | AL |                 |      |         |       |          |             |    |
|  | AM |                 |      |         |       |          |             |    |
|  | AN |                 |      |         |       |          |             |    |
|  | AO |                 |      |         |       |          |             |    |
|  | AP |                 |      |         |       |          |             |    |

## OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

|  |     |  |
|--|-----|--|
| <p>1988</p> <p>1989</p> <p>1987</p>  | AR" | Riordan, J. et al. (1989) "Identification of the Cystic Fibrosis Gene: Cloning and Characterization of the Complementary DNA" SCIENCE 245:1066-1073. |
|  | AS" | Kerem, B-S. et al. (1989) "Identification of the Cystic Fibrosis Gene: Genetic Analysis" SCIENCE 245:1073-1080.                                      |
|  | AT" | Dorin, J.R. et al (1987) "A Clue to the Basic Defect in Cystic Fibrosis from Cloning the CF Antigen Gene" NATURE 326(9):614-617.                     |
|  |     |  |
|  |     |  |
| Examiner<br><i>K. Chano Carbon</i>   |     | Date Considered<br><i>11-2-93</i>  |
| EXAMINER<br>Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |     |  |